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Reagan Tide Spells No Shakeup for Research

For the scientific community, there's less uncertainty than for many other government-dependent sectors in trying to foresee the effects of the Reagan upheaval.

Stated briefly, a Reagan Administration will probably be pretty good for the financial interests of science, and it's likely, too, that all that academic grumbling about governmental interference and red tape will find sympathetic and responsive listeners in high places.

The bright side, as far as research is concerned, is that Reagan, though he hasn't displayed much interest in the subject, is surrounded by many industrial and business figures who regard research as among this country's leading strengths. That the potential of research has been neglected by government in recent years—well, that's been said so often that it's now accepted uncritically, even by those so-called hardnosed businessmen who see too much government as a major source of this country's industrial ills.

Carter Science Office Prepares for Turnover—Page 4

There's a dark side, however, and that originates in Reagan's often-made promises to cut taxes and a great deal of government spending, while increasing the military budget. Defense research and development is thus surely due to continue the growth that it experienced under Carter; and it's likely, too, that space spending—much favored by the high-tech advisory crowd that Reagan has assembled (see page 2)—will also benefit under the new Administration. But as for the other R&D agencies, while there should be no doubt that the Reaganite spirit is willing, what may be lacking, however, is cash.

Another factor to be considered is the makeup of the Congress that will convene in January. While many of the key subcommittee chairmanships are still to be determined, the overall flavor of the Congress is strictly conservative—probably even more so than the election returns indicate, given the message that's been sent to incumbents who face a re-election campaign in two years. Though the Democrats retained control of the House, and will chair its committees, the ideological makeup of that chamber is now so conservative that big spending increases for anything outside the military are certain to encounter serious opposition.

Though big increases in non-military R&D spending appear unlikely, the mantle of military R&D covers a

wide territory. Under Carter, a lot of repairs were made to the military-academic links that were cut or frayed by the Vietnam War, and Defense spending on campuses around the country began to accelerate; expect more of that in the Reagan Administration.

Another growth factor is in the political consensus that's developed for assuring "real" annual growth for basic science and much applied research. That process, started under Gerald Ford, committed his Administration to making up for the purchasing-power losses that science experienced in the late 1960s and early 1970s. Carter inherited that policy and carried it forward. Though the so-called real gains varied from year to year—and tabulation to tabulation—research has nonetheless been accorded the rare position of being one of the few federal budget items that's indexed for inflation. The index—designed to keep spending power several points above the inflation rate—exists on a non-statutory, tacit basis, but it has held firm for six years. And, if Reagan's campaign statements have only a little bit of reality in them insofar as research is concerned, he's committed to keeping up the pace.

For example, in response to questions to the candidates submitted by *Chemical & Engineering News*, a statement was submitted by the Reagan campaign which said that "Ronald Reagan recognizes the need for
(Continued on page 2)

In Brief

Frank Press will leave the directorship of the White House science office January 1, to return to MIT, where he's been appointed a University Professor. But as the sole candidate for the presidency of the National Academy of Sciences, he's due back in Washington July 1, when the six-year NAS term commences.

Senator Edward Kennedy (D-Mass.) steps down from the chairmanship of the Health and Scientific Research Subcommittee—which writes authorizations for NSF and NIH—as a result of the Republican takeover of the Senate. Because of the big reshuffle caused by retirements and defeats and committee reassignments, his successor won't be known for at least a few weeks.

The Republican tide was so strong that it rolled over Rep. Mike McCormack, the Washington State champion of fusion power—just a few weeks after Congress passed his bill calling for an accelerated program to demonstrate fusion power by the end of the century.

Reagan R&D Group Holds Two-Day Meeting

With a distinct western, high-tech flavor to its membership President-elect Reagan's Science and Technology Task Force assembled in Washington on November 8-9 for a closed meeting that one member described to SGR as "inconclusive."

The 15-man (no woman) Task Force was formed late in the campaign, and, while not at all hush-hush, has remained inconspicuous. Though Reagan has made some effort to come across as a science and technology booster, research-related issues were absent from the campaign, and the competing platform planks on research and development were almost indistinguishable. The S&T Task Force represents an ideological wing of R&D that's in harmony with Reagan's view of an America encumbered by governmental timidity and over-regulation. But, with neither research issues nor researchers figuring large in the quest for votes, the Task Force was on the distant sidelines during the campaign.

The two-day meeting is to be followed next week by another get together, but what they're meeting about, and how this all ties in with the process of composing a Reagan Administration, is far from clear. One item that

REAGAN (Continued from page 1)

federal government support of scientific and technological research and will enthusiastically support its continuation."

The statement rejected linking R&D budgets to the gross national product "or any other measure," but since there's no serious proposal for such a tieup, that qualification doesn't mean anything.

What's evident about the political position of science and technology in the modern state—not just in a Reagan Administration—is that they're seen as indispensable for national well-being and competitiveness in a difficult, hostile world.

As a result, all developing nations want at least a piece of a scientific establishment of their own, while the industrialized nations are, with rare exception, committed to doing more research and linking it more tightly to their military, industrial, and social needs.

R&D, since it starts slowly, moves slowly, and usually takes a long, long time to complete, does not rank high in the new Administration's concerns. Inflation, employment, Soviet-American relations, and the Middle East all come ahead, and it's not likely that Reagan will soon, if ever, devote more than a ceremonial nod to science-related matters. But that doesn't mean neglect by his Administration. To the contrary, science, because of its value for national muscle power, is likely to be well treated.—DSG

Following are the members of President-elect Reagan's Science and Technology Task Force:

Co-Chairmen

Arthur M. Bueche, General Electric, Senior Vice President for Corporate Technology.

Simon Ramo, retired (1978) from TRW, of which he was a founder; was active under Gerald Ford in re-establishing the White House science office.

Members

Harold Agnew, former Director, Los Alamos Scientific Laboratory, President, General Atomic.

William Baker, retired, former President, Bell Labs.

Franklin Murphy, Times Mirror Co., and former chancellor, UCLA.

William Nierenberg, Director, Scripps Institution of Oceanography.

Lewis Sarett, Senior Vice President, Merck, Inc.

Edward E. David Jr., President, Exxon Research and Engineering Corp. and White House Science Adviser, 1970-73.

Bernard A. Shriever, retired, US Air Force general and missile-development chief.

Frederick Seitz, former President, National Academy of Sciences, recently retired from presidency of Rockefeller University.

H. Guyford Stever, Washington consultant, former Director, National Science Foundation and White House Science Adviser under President Ford.

Wilson Talley, University of California, Davis and Livermore Laboratory.

Edward Teller, physicist, often referred to as father of the H-bomb.

Teddy Walkowicz, National Aviation and Technology, New York.

Robert Whelon, Vice President, Hughes Aircraft.

was inconclusively dealt with at that first meeting was consideration of candidates for science adviser for the new President. The name most often mentioned around Washington is William A. Nierenberg, Director of the Scripps Institution of Oceanography, of the University of California. Nierenberg is a member of the S&T Task Force, is on the Council of the National Academy of Sciences, and also serves on several NAS committees—the usual signs of active interest in Washington affairs. The Task Force, however, considered various people whom it might recommend for the science advisor's post, but settled nothing, SGR is advised.

Looking over the list of Task Force members, what's notable is the total absence of anyone from Harvard or MIT, both of which have been heavily represented in presidential science affairs ever since Dwight Eisenhower appointed a White House science advisor as part of his response to Sputnik. Of interest, too, is the presence of Edward Teller, the nuclear physicist, whom the Eastern science establishment, with its strong arms-

(Continued on page 3)

Higher Ed Ponders Future Under Reagan

The November 4 landslide left Washington's higher-education associations pondering a bleak and unfamiliar landscape. Only the Association of American Universities (AAU), representing the elite research institutions, seemed to view the prospect of a Reagan Administration and Republican-controlled Senate with any warmth.

AAU members may fare better than the rest of higher education, because they get a big share of federal money from research agencies, such as the National Science Foundation and the National Institutes of Health, whereas the lesser ranks of academe are more dependent on the Department of Education. ED, as it's known, was promised a purge by candidate Reagan, though he's since backed off a bit. While ED's future is sorted out, AAU's Director for Federal Relations, Newton Cattell, is cheery about the long term prospects for academic science under President Reagan, and he looks forward

to the introduction of tax incentives for private industry to support university research—an approach unpopular with the Carter administration but in line with Republican philosophy.

On the other hand, Cattell is prepared for Reagan's first budget to cut basic research programs, along with everything else outside the Pentagon. But agencies like NSF and NIH should get off lightly compared with ED, one of Reagan's favorite campaign targets.

Last month's celebrations after Congress passed a generous Higher Education Act, authorizing \$48 billion in federal aid to colleges and universities over the next five years (SGR Vol. X, No. 16), seem premature now. The battle to extract funding for the new program will be tougher than anyone had imagined (though education lobbyists see one consolation in the Republican takeover of the Senate—Sen. Charles Mathias (R-Md.), about the most liberal member of his party remaining in Congress, is in line to become chairman of the Education Appropriations Subcommittee.)

"We're in for a period of real belt-tightening," warned Sheldon Steinbach, General Counsel of the American Council on Education. He is the only representative of Washington's higher-education associations on the 14-member education-policy task force which Reagan appointed shortly before the election.

However, Steinbach said that the group, which has met only once so far, had not concentrated on cutting the education budget. The discussion, he said, centered on the introduction of tuition tax credits—a central point of the Republican education platform—and on ways to reduce federal interference in education, by scaling down and possibly abolishing the Education Department.

For elementary and secondary education, this diminution of the federal role will involve replacing many of the highly specific ED programs with block grants to states and school districts. In higher education there is less scope for such consolidation, but universities can expect Washington to issue and enforce fewer regulations. And, to judge from academe's complaints

(Continued on page 4)

TASK FORCE *(Continued from page 2)*

control interest, has generally kept out of high-level advisory posts. Teller, 72, is in retirement, and, furthermore, suffered a heart attack in 1978. It's not likely that he will be active in the Reagan Administration, which suggests that his presence on the Task Force may represent at least a touch of ideological retribution for his long exclusion from Washington affairs.

Scientists and engineers from industry have always been included in the high-level advisory councils, but the dominant flavor—even under Richard Nixon, who reached into Bell Labs for his second science advisor—was academic. The Reagan task force, which is likely to be a major source of advice for full-time and advisory appointments to the new administration, departs from the past patterns through its heavy industrial representation.

Symbolism collectors might note with interest that the meeting place for the group was the Washington offices of General Electric, of which Task Force co-chairman Arthur M. Bueche is Senior Vice President for Corporate Technology.

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...A Reprieve for Department of Education?

(Continued from page 3)

about the administrative burdens imposed by the Carter bureaucracy, deregulation should be worth something in reduced administrative costs—Parkinson's Law notwithstanding.

No one knows how much political capital Reagan will invest in the abolition of the six-month-old Education Department, if any. President Carter devoted a lot of energy to its establishment, which the Senate approved with a large majority, including many Republicans. Curiously, the Administration's main battle was to persuade enough House liberals to support the ED proposal against the opposition of the AFL-CIO. The new Congress will not dismantle ED if Reagan just snaps his fingers and asks it to.

At his first press conference as President-elect, Reagan said yes, of course he would appoint secretaries to head the two departments on his hit list, Education and Energy. That scotched speculation that he might somehow attempt to downgrade ED immediately by executive action.

Reagan then added some words that the education establishment found reassuring: "When you talk about questioning whether a cabinet-level department should exist as it is today, that does not mean that you are

throwing out the legitimate functions that have always been performed by government and that should continue to be."

There is plenty of gossip about likely candidates to succeed Carter's Education Secretary, Shirley Hufstедler, though the Reagan camp has given no good clues. Names that have been mentioned include: Terrel Bell, US Commissioner of Education under President Ford and now Commissioner of Education in Utah; retiring Pennsylvania Senator Richard Schweiker; Minnesota Governor Albert Quie; Carolyn Warner, Arizona superintendent of public instruction; and Edith Green, former member of the House of Representatives from Oregon.

The college and university lobbyists naturally hope to influence policy-making in the Reagan camp and they are already preparing wish lists to send the President-elect. However, One Dupont Circle, the Washington home of the country's higher-education associations, is so closely associated with big-spending Democratic policies, and so few of its occupants have cultivated contacts with Reagan's staff, that their advice is unlikely to be well received—even if it is dressed up in Reaganite terminology, as it may be.—CS

Press Prepares for Science Office Turnover

White House Science Adviser Frank Press was waiting last week for the Reagan-Carter transition chiefs to work out details for the change of administration. In the meantime, Press told SGR in an hour-long chat, he's taken a number of steps to assist an orderly transition.

First, he and his staff are putting together a "transition book," which will tell their successors—still to be named—about various White House science-related matters that are under discussion, underway, and approaching. For example, coming up this spring, probably in March, will be the second annual meeting of US and Chinese high-level government science administrators, to be held in the US this time. Lots of staff work precedes such meeting.

Press said that one of his first steps upon hearing the election returns was to eliminate all discretionary spending by his office—mainly for studies contracted for with outside organizations—so that the incoming director could decide on the use of the new budget, which went into effect on October 1.

He said he also wants to convey some of the insights that he obtained from three and a half years on the job. Among the most important of these, he said, is that it's essential to develop close working ties with the Office of

Management and Budget—which Press feels he did—and to be perceived in OMB and elsewhere as a member of the President's team, rather than as the representative of an outside constituency. "If they know your vote in advance," Press said, "it doesn't count," adding, "I don't think I ever lost credibility" with OMB.

Press said that he thought it extremely important for the science office to have a close relationship with the National Security Council, and that he feels he was greatly helped in achieving this through the dual appointment that one of his staff associates, Ben Huberman, held on the NSC and the science office staff.

Looking back on his tenure, Press said that one of the major achievements was re-establishing the White House science office as an integral part of the President's staff. The office was recreated by Congress late in the Ford Administration, after Nixon abolished its non-statutory predecessor. It functioned smoothly and was well regarded, but its existence under Ford was brief, and when Carter took office, there was considerable uncertainty as to whether he would keep the advisory function at the White House. Press says that he feels all doubts have now been resolved and that the

(Continued on page 5)

...Second Thoughts About Reviving PSAC

(Continued from page 4)

desirability of on-board science advice at the White House is clearly established.

As for the much-debated question of whether the science advisory setup should be accompanied by a council of scientific wisemen—such as the President's Science Advisory Committee, which Nixon abolished and Carter rejected—Press confessed to some second thoughts. On previous occasions, he took the position that the issues now coming to the science office are too varied and complex to be handled by a standing committee, even with the assistance of specially appointed panels. When PSAC was established by Eisenhower, Press pointed out, it dealt mainly with weapons issues and was composed mainly of physicists with relevant backgrounds. The issues today cover the waterfront, he noted.

Added to this, he continued, are problems arising from the so-called sunshine laws, which prohibit closed-door meetings on most subjects. For a council to be effective as an advisor to the President, it must be fully briefed and it must be committed to confidentiality—and that's difficult today, he said.

On the other hand, Press said, many of his colleagues in the select circle of presidential science advisor alumni feel strongly that the PSAC model is sound and extremely useful and, he added, "I am impressed by the unanimity of their opinion."

Given a President who likes that style of advising, it might work well, Press said. But he quickly noted that Carter, with his commitment to cutting down on standing advisory groups, was not such a President.

On big science, Press said he feels that the next big fusion machine and high-energy particle accelerator

should be internationally financed and operated. The costs, he said, are getting too big for any one country to bear.

In regard to his relations with Congress, he said that he was both puzzled and amused by the gap between what he has experienced as good relations with House and Senate members and science press reports of antagonisms between him and the Congress. "I've taken a bum rap," he said with good humor, while noting that several Congressional reports have sniped at him and his office for failure to provide Congress with a long-range master plan for science.

"I could spend a lot of time on long-range planning or I could deal with the problems that the White House regards as important. That doesn't mean that the long-range is ignored, because it hasn't been. But if we had spent a lot of time on long-range planning, we would have been reorganized right out of the White House."—DSG

Science Writing Grant for Hopkins

The Henry Luce Foundation has granted Johns Hopkins University \$300,000 to support a Henry Luce Professorship in Science and Writing for five years. The University has established a search committee which, according to an announcement, is seeking "either a scientist who is an outstanding writer or a writer who is expert at conveying science to the general public."

The Hopkins writing program is a well-established feature on the University's Homewood, Baltimore, campus. The Foundation that will finance the science and writing professorship was established in memory of the late founder of *Time* magazine.

Report to Carter on Science Education Stirs Wide Interest

The National Science Foundation-Department of Education report on "Science and Engineering Education for the 1980s and Beyond," released last month, has sparked enough interest since the election to suggest that the study's impact may outlast the Carter Administration.

A *New York Times* editorial spotlighted the document's warning about the growing gap between scientists and nonscientists in the United States and about the allegedly superior level of scientific literacy in the Soviet Union, West Germany, and Japan. Then the *Washington Star* editorially discussed the section of the report dealing with the shortages of professional engineers and computer scientists. Both papers urged more federal support for science and engineering education.

Last week the American Association of Engineering Societies attacked the report for failing to show a proper sense of urgency about the shortages of academic engineers and the obsolete equipment in university laboratories. And the National Science Teachers Association made a similar criticism about the section on science in elementary and secondary schools.

The report came out of a study that President Carter ordered last February in response to concerns about US standings relative to science and engineering training in other nations.

(Copies are expected to be available soon from: National Science Foundation, Forms and Publications Office, 1800 G St. NW, Washington, D.C. 20550.)

Gene-Splicing Riches Stir Academic Debate

Harvard has gotten the spotlight for its debate over whether the university itself should pursue commercial exploitation of the recombinant DNA research conducted in its laboratories. But without similar public notice, the same issue is being examined at several other major research universities.

At Yale, for example, a committee has been meeting for several months to discuss whether a company should be established to develop recombinant DNA research results such as those announced earlier this year on the expression of foreign genetic material in mouse genes. One proposal circulated for faculty comment received considerable criticism, particularly from non-scientist faculty, for leaning too far towards industrial interests, and has been returned to an expanded committee for further consideration.

Meanwhile, at the University of Michigan, discussions are taking place with Herbert Doan, ex-chairman of the Dow Chemical Company and now chairman of his own venture-capital company, about possible collaboration. Michigan is one of several universities which has seen its faculty members make large sums of money through their involvement in small, venture-capital based genetic-engineering companies.

Johns Hopkins Medical School confirmed last week that the same matters were "under consideration," although no firm decision had yet been made. Stanford University has also been contemplating a plunge into the booming gene industry.

University administrators have had their appetites whetted by the spectacular stock market debut of the small San Francisco genetic-engineering firm Genentech, which brought euphoria to Wall Street when its stocks soared from \$35 to almost \$90 on the first day of public trading, even though the main product through which the company hopes to make substantial profits—interferon—has yet to prove its biomedical effectiveness.

But this new commercial enthusiasm for biochemistry, previously considered a relatively mundane field of science, has inevitably raised concerns about its potential impact on the scientific community. The academic freedom committee of the American Civil Liberties Union, for example, is already discussing whether to issue some type of statement about the safeguards necessary to preserve the free flow of scientific information and to guarantee that academic decisions—relating, for example, to promotions and new appointments—are made solely on academic grounds. "Perhaps it is time for another Asilomar," says Donald Kennedy, President of Stanford University—a reference to the 1974 meeting at which the need for guidelines covering the safety aspects of recombinant DNA

research was first raised.

Whether biologists are making a compact with the devil, or merely experiencing a loss of virginity, has become the subject of intense debate in laboratories and faculty meetings throughout the country. It is frequently pointed out that close links with industry have been accepted for many years in other research disciplines, such as physics and chemistry, and indeed that such links are beneficial, perhaps necessary, for the continued support of basic research.

Three factors, however, distinguish the current debate. The first is that with inflation eroding federal support for basic research in universities, many are turning to the private sector both to supplement federal funding and to finance new ventures. In the campus debates, a shortage of federal funds is the commonly offered rationale for moving into business not merely as research contractors or patent owners, but as entrepreneurs.

"In past decades, universities like Harvard have benefited from a series of new funding sources: alumni, foundations, and federal agencies. Today it is impossible to discern important new sources of gifts and grants," says Harvard's general counsel, Daniel Steiner, in a memorandum outlining the university's reasons for contemplating moving into business. "As a result, if we are to continue to meet rising expenses and to maintain scientific research of high quality, we need to explore ways of sharing in the financial rewards that can come from the application of the new knowledge discovered in the university." Even more than the licensing of patents—currently the most common way for universities as institutions to benefit from their research—the ownership of equity in a new technology company offers "the possibility of substantial financial return for Harvard," Steiner argued.

Another difference is that, whereas in the past it has mainly been areas of applied research, such as chemical engineering, applied physics, and materials research, that attracted industrial interest, in the area of recombinant DNA research the frontiers of basic science tend to coincide with intense commercial interest—for example, in the ability to sequence and clone the protein interferon.

Finally the new linkages being sought by universities are not, as in the past, directly with industrial companies interested in exploiting particular applied research results, but with the venture-capital market, exploiting both the current availability of venture capital for investment in high-technology areas and the relative flexibility which a purely entrepreneurial institution can enjoy over one fixed to more rigid objectives.

(Continued on page 7)

...Stanford Creates New Links with Industry

(Continued from page 6)

In the Harvard case, it had initially been proposed to the university that a company, largely financed by Eli Lilly, the pharmaceutical firm, should be set up to exploit research results from the university's laboratories. However this is said to have been vetoed both by the university administration and the Harvard Management Company, which manages the university's endowment and has since been seeking support from a number of venture capital companies. According to Steiner, university administrators would have no say in the projects undertaken by the proposed new company, and project selections would be made purely in terms of commercial potential.

Harvard's proposals have been received with some skepticism by various faculty members, particularly those who feel that the result will inevitably be to skew research priorities—perhaps unconsciously—and faculty appointments towards fields of commercial rather than scientific interest. There have already been some grumblings, for example, about the amount of time that academic scientists associated with Genentech are required to spend on a single project, an efficient method for the production of interferon, rather than pursuing projects of more personal interest.

Indeed faculty at Stanford University rejected a proposal similar to Harvard's some time ago, when the commercial potential of recombinant DNA research was first beginning to surface. At the time, there had been serious discussion of whether the university should get heavily involved in exploiting the potential applications, but it was decided to restrict its role to collecting royalties on patents and allowing university faculty members to engage in a limited amount of outside consulting.

More recently, Stanford's biochemistry department, the originator of many of the first recombinant DNA research results, has initiated an industrial affiliates program. Companies which sign up are entitled to send representatives to an annual one-day seminar put on by the department, to send a representative to spend one day talking to the faculty members about their research, and to have a visit once a year from a faculty member. Fifteen companies have so far signed up as affiliates, including both Genentech and its rival, Cetus, as well as several major pharmaceutical and biochemical companies. Each company is required, in return for its membership, to make a gift of \$12,000 towards the university, which the department hopes to be able to use to support young research workers and buy equipment not available on federal grants.

Stanford scientists feel that this arrangement will allow them to keep at arms length from direct commer-

cial involvement, but still exercise their responsibility to see that research results reach the public domain through a process which is seen primarily as keeping companies up-to-date with their research (an arrangement similar to the industrial affiliates programs already operating in several other university departments). More controversial is a proposal from the university's Department of Medicine to set up an Institute of Biological and Clinical Investigation, which would enter into agreements with a limited number of pharmaceutical companies.

The same concerns voiced previously at Stanford have arisen again at Harvard, as well as Yale. Indeed Harvard's moves are partly in response to a more provocative scheme put forward by Mark Ptashne, Professor of molecular biology, which would, among other things, have involved renting laboratory space from the university and locating commercial research—at least temporarily—within university premises.

This proposal provoked a particular outcry from other faculty members over the summer. In response, Steiner's memorandum says that as a general rule, the use of university facilities for commercial purposes would appear "unwise." Listing some of the objections raised about potential conflicts between commercial operations and the university's teaching and research responsibilities, Steiner says that "although it is conceivable that in certain circumstances short-term arrangements for a few years might be permissible and in the interests of Harvard, any proposal for a technology company to use Harvard space should be viewed with great caution."

If a company is established by the university, then it is not likely to be situated in Cambridge, the site of an intense local debate four years ago over whether the City Council should impose its own conditions on recombinant DNA research carried out at Harvard and at MIT. A citizens review board, previously disbanded, has just been reinstated to review proposals by another genetic-engineering company, Biogen, in which Harvard's Walter Gilbert and MIT's Philip Sharp are scientific directors, to build a laboratory and production facility in the city.

Biogen's proposal has also led to the revision of a previous ordinance which had lapsed two years ago. And there are rumors that ex-mayor Alfred Vellucci, a strong opponent of all recombinant DNA research, is once again gathering his objections, particularly since there are currently no legal guidelines covering private recombinant DNA research (although all the companies involved have agreed voluntarily to follow the NIH guidelines). —David Dickson

(The author is Washington correspondent of *Nature*.)

NIH, NSF Out of Line of Political Change

Nobody knows for sure, but the expectation in Washington science-policy circles is that the top levels at the National Institutes of Health and the National Science Foundation will, according to tradition, be untouched by the sweep that accompanies the arrival of a new Administration.

The Director of NIH, as well as the Director of the National Cancer Institute, are presidential appointees, as are the Director of NSF, the Deputy Director and four assistant directors. While it is customary for presidential appointees to submit their resignations to the incoming Administration, tradition has it that the custom applies only to political agencies—which NIH and NSF claim not to be. The National Aeronautics and Space Administration, on the other hand, is considered political and would be in line for a new chief, even if Administrator Robert Frosch hadn't announced his departure prior to the election (SGR Vol. X, No. 18).

All the various Cabinet-department assistant secretaries for research-related matters will be leaving, unless there's a highly unlikely invitation to remain in place.

The White House science office—comprising the presidential science adviser, 21 professionals, and about half a dozen secretaries—will all resign; none of them, according to Science Adviser Frank Press, has Civil Service tenure, which is by design, he said, so that each president can do his own choosing.

NSF Chief Still Not on Board

John Slaughter was confirmed by the Senate on September 24 as Director of the National Science Foundation, but, as of November 10, he remained at Washington State University, finishing up his duties as Provost there. Meanwhile, he hasn't been sworn into the NSF directorship, and the Foundation is legally headed, on an acting basis, by Deputy Director Donald Langenberg.

Carter Administration sources say that Slaughter is expected to take up the NSF post sometime in the next few weeks, that his delayed arrival was known beforehand, and that there are no snags resulting from the election returns.

Manual on Laboratory Hazard

Prudent Practices for Handling Hazardous Chemicals in Laboratories, a manual for school and professional laboratories, has been prepared by a committee of the National Academy of Sciences Research Council. A limited number of typescript copies are available without charge now; additional copies for sale in mid-January. Request from: National Academy of Sciences, Committee on Hazardous Substances in the Laboratory, 2101 Constitution Ave. NW, Washington, D.C. 20418.

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